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|----------|-------------------------|---|-----------------|---------------------------------|------------------------------|------------------------------|--|--|--|--|--|
| | GLRaV2-PRO1 | : SRVIYPDGRCYLAHMRYLCAFYCRPFRESDYAI | LGMWPTVARLRACVE | KNFGVEACGIALRGYYTSRNVY | ! HCDYDSAYVKYFF | NI SGRIG (C | | | | | |
| | GLRaV2-PRO2 | TRIRYPNGFCYLAHCRYACAFLLRGFDPKRFDIGAFPTAAKLRNRMVSELGERSLGLNLYGAYTSRGVFHCDYDAKFIKDLRLMSAVIA/G | | | | | | | | | |
| | BYV-P-PRO | LQYRPGEGLCYLAHAALCCALQKRTFREEDFFVGMYPTKFVFAKRLTEKLGPSALKHPVRGRQVSRSLFHCDVASAFSSPFYSLPRFIG/G | | | | | | | | | |
| | Consensus | G.CYLAHCAR.F | .GPT | G | HCD | SLPRFIG/G | | | | | |
| | | | | | | | | | | | |
| | L | | | | | | | | | | |
| | b | N | AT I | MT la | | MT II | | | | | |
| | GLRaV2-MTR | MSEATQNSLTRFYPQFELKFSHSSHSDHPAF | AASRLLENETLVRI | CGNSVSDIGGCPLFHLHSKTC | RRVHVCRPVLDG | | | | | | |
| | BYV-MTR | MGEAVQSGLTRAYPQFNLSFTHSVYSDHPA | AGSRLLENETLASM | akssfsdiggcplfhik-rgs MT III | TDYHVCRPIYDM | KDAQRRVSRELQ | | | | | |
| | GLRaV2-MTR | YSNVRLG-DDDKILEGPRNIDICHYPLGACI | | | | | | | | | |
| | BYV-MTR | ARGLVENLSREQLVEAQARVSVCPHTLGNCN | VKSDVLIMVQVYDA | SLNEIASAMVLKESKVAYLTM | VTPGELLDEREA VTPGELLDEREA | VYMESLDCETEV FAIDALGCDVVV | | | | | |
| | | MIIV | | | | | | | | | |
| | GLRaV2-MTR | DVHADVVMYKFGSSCYSHKLSIIKDIMTTPY | LTLGGFLFSVEMYE | VRMGVNYFKITKSEVSPSISC | TKLLRYRRANSD | VVKVKLPRFD | | | | | |
| | BYV-MTR | DTRRDMVQYKFGSSCYCHKLSNIKSIMLTPA | FTFSGNLFSVEMYE | NRMGVNYYKITRSAYSPEIRG | VKTLRYRRACTE | VVQVKLPRFD | | | | | |
| | | | | | | | | | | | |
| | С | | | | | | | | | | |
| 브 | | HEL I | | <u>L la</u> | | | | | | | |
| | GLRaV2-Hel | FVFTNSSVDILLYEAPPGGGKTTTLIDSFLK | VFKKGEVSTMILTA | NKSSQVEILKKVEKEVSNIEC | QKRKDKRSPKKS: | TYTIDAYLMHHR | | | | | |
| | BYV-Hel | FTFTNLSANVLLYEAPPGGGKTTTLIKVFCE | | NKSSREEILAKVNRIVLD-EG | OTPLQTRDR | ILTIDSYLMNNR | | | | | |
| | GLRaV2-Hel | HEL II | HEL III | | HEL IV | | | | | | |
| <u> </u> | BYV-Hel | GCDADVLFIDECFMVHAGSVLACIEFTRCHK | VMIFGDSRQIHYIE | RNELDKCLYGDLDRFVDLQCR | /YGNISYRCPWDV | /CAWLSTVYGNL | | | | | |
| | | GLTCKVLYLDECFMVHAGAAVACIEFTKCDS. | | <u>н</u> | EL V | | | | | | |
| | GLRaV2-Hel | IATVKGESEGKSSMRINEINSVDDLVPDVGS | TFLCMLQSEKLEIS | KHFIRKGLTKLNVLTVHE | QGETYARVNLVI | RLKFQEDEPFKS | | | | | |
| | BYV-Hel | VATTNLVSAGQSSMQVREIESVDDVEYSSEF | VYLTMLQSEKKDLLI | KSFGKRSRSSVEKPTVLTVHE | \QGETYRKVNLVI | RTKFQEDDPFRS | | | | | |
| -i | GLRaV2-Hel | IRHITVALSRHTDSLTYNVLAARRGDATCDA | IQKAAELVNKFRVF | PTSFGGS | | | | | | | |
| ÷ | BYV-Hel | ENHITVALSRHVESLTYSVLSSKRDDAIAQA: | IVKAKQLVDAYRVYI | PTSFGGS | | | | | | | |
| | | | | | | | | | | | |
|] | d | | | | | | | | | | |
| | - | RdRP I RdF | RP II | Rd | RP III | | | | | | |
| | GLRaV2-RdRP | ICRFKLMVKRDAKVKLDSSCLTKHSAAQNIM | FHRKSINAIFSPIF | | | | | | | | |
| | BYV-RdRP | ITTFKLMVKRDAKVKLDSSCLVKHPPAQNIM | FHRKAVNAIFSPCFI | DEFKNRVITCTNSNIVFFTEMT | NSTLASIAKEMI | GSEHVYNVGEI | | | | | |
| | | RdRP IV | | RdRP \ | / | | | | | | |
| | GLRaV2-RdRP | DFSKYDKSQDAFVKAFEEVMYKELGVDEELLA | AIWMCGERLSIANTI | DGQLSFTIENQRKSGASNTW | GNSLVTLGILSI | YYDVRNFEALY | | | | | |
| | BYV-RdRP | DFSKFDKSQDAFIKSFERTLYSAFGFDEDLLI | DVWMQGEYTSNATTI | DGQLSFSVDNQRKSGASNTWI | GNSIETLGILSM | IFYYTNRFKALF | | | | | |
| | CI.Dawa nann | RdRP VI | RdRP VII | RdRP VIII | | | | | | | |
| | GLRaV2-RdRP BYV-RdRP | ISGDDSLIFSRSEISNYADDICTDMGFETKFN | MSPSVPYFCSKFVVN | (CGHKTFFVPDPYKLFVKLGA | KEDVSMDFLFET | FTSFKDLTSDF | | | | | |
| | V MARIE | VSGDDSLIFSESPIRNSADAMCTELGFETKFI | LTPSVPYFCSKFFV | MTGHDVFFVPDPYKLLVKLGAS | KDEVDDEFLFEV | FTSFRDLTKDL | | | | | |
| | GLRaV2-RdRP | NDERLIQKLAELVALKYEVQTGNTTLAL | | | | | | | | | |

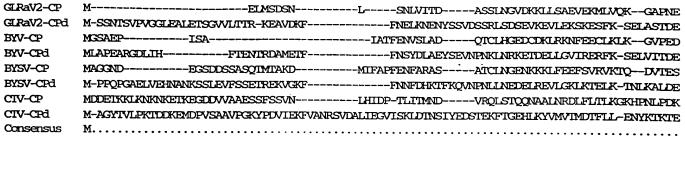
а

BYV-RdRP

VDERVIELLTHLVHSKYGYESGDTYAAL

| а | | | | | | | | | | | | | | | | | | |
|---|-----------|-----|-------------------|------------|-------------|-----------|-----|------------|--------------|------|------|-------|------|-------|------|----------|--------------|--------------|
| | GLRaV-2 | CAI | CAL | IAAC | CAG | ŒU | GUU | <u>UAG</u> | <u>g</u> guz | AGU | | JUCC: | CAC | ECC | AUU | 223 | œu | 4GA |
| | BYV | CAC |)GAC | XX | CAG | ŒG | GUU | UAC | ZΙα | JUAE | XXX | w | CAG | Œ | AUU | œu | AAG? | ¥GG |
| | BYSV | CAC | X S AL | GA | CAG | CC | GUU | UAG | <u> </u> | AGU | JAGC | :UCC | CAC | œ | ALIO | ∞ | LAA A | 1 000 |
| | CIV | CA | CGAZ | 400 | 33 0 | | GUU | 223 | <u>o</u> gu | AGU | AAC | EUCZ | \CAZ | AGCIA | AUU | α | CCA. | AGA |
| | Consensus | CA | .GA | • • • | | œ. | GUU | IG | ē., | บ | | œ. | .CA. | œ. | AU. | œ. | | AG. |
| b | | | | | | | | | | | | | | | | | | |
| | GLRaV-2 | Н | D | K | Q | R | ٧. | <u>s</u> | v | v | R | S | Q | Α | I | P | R | R |
| | BW | H | D | P | Q | R | V | <u>s</u> | S | I | R | s | Q | Α | I | P | K | R |
| | BYSV | H | D | E | Q | R | V | <u>s</u> | v | V | R | S | Q | A | I | P | K | R |
| | CIV | H | E | P | A | R | V | <u>G</u> | V | V | R | s | Q | A | I | P | P | R |
| | Consensus | H | | | | R | v | _ | _ | | R | S | 0 | Α | т | P | | B |

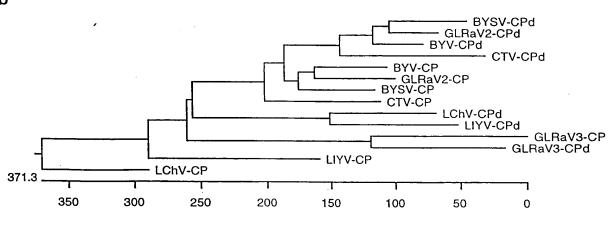
| GLRaV2-HSP70 | MVVFGLDEGTTESTVCVYKDGRVFSFKQNNSAYIPTYLYLFSDSNHMTFGYEAESLMSNLKVKGSFYRDLKRWGCDSSNIDAYIDRIKP MVVFGLDEGTTESSVCAYVEFET VIEWODSSAYIDRATITUTTUTTUTTUTTUTTUTTUTTUTTUTTUTTUTTUTTU |
|--|---|
| BYV-HSP70 | MWFGLDFGTTFSSVCAYVGEELYLFKQRDSAYTPTYVFLHSDTQEVAFGYDAEVLSNDLSVRGGFYRDLKRWIGCDEENYRDYLEKLKP |
| GLRaV2-HSP70 | |
| BYV-HSP70 | THIS VALVALGS GENELVES GOVERNED THE FIXAVI SCAFFACILITY TO COMPANY TO THE PROPERTY OF THE PROP |
| DIV IDE/O | THE CONTROL OF THE CO |
| GLRaV2-HSP70 | <u></u> |
| BYV-HSP70 | EPSAAALSACNSIGKKSANLAVYDFGGGTFDVSIISYRNNTFVVRASGEDINLGGRDVDRAFLIHLFSLTSLEPDIJTIDISNIKESLSKT |
| | EPSAAALSACSRIKGATSPYLVYDFGGGIFDVSVISALMIFVVRASGGMNLGGRDIDKAFVEHLYNKAQLPVNYKIDISFLKESLSKK |
| GLRaV2-HSP70 | DAETVYTERGVDGRKEDVRVNKNILITSVMLPYVNRTEKILESTEKSYAKSMNESARVKCDLVLIGGSSYLEGLADVLTKHQSVDRTERVS |
| BYV-HSP70 | VSFINFPVVSBQGVRVDVIXNVSELAEVAAPFVERTIKIVKEVYEKYCSSMRLEPNVKAKILMVGGSSYLFGLLSRLSSIPFVDBCIVLP |
| | |
| GLRaV2-HSP70 | DPRAAVAVCALYSSCI_SGSGGLLLIDCAAHTVALADRSCHQIICAPAGAPIPFSGSMPLYLARVNKNSQREVAVFBGEYVKCPKNRKIC |
| BYV-HSP70 | DARAAVAGGCALYSACIRNDSPMLLVDCAAHNLSISSKYCESIVCVPAGSPIPFTGVRTVNMTGSNASAVYSAALFEGDFVKCRLNKRIF |
| GLRaV2-HSP70 | |
| BYV-HSP70 | CANIRFFDIGVIGESYAPVIFYMDFSISSVGAVSFVVRGPBEKQVSLIGTPAYNFSSVALGSRSVRELHISLNNKVFLGLLLHRKADRRI FGLWLGNWSVIGSATRINGIUT FINNSS AUTOMATICALITY INTERNATIONALITY INTERN |
| | FCDWLCMGVIGSATRIVPLILEINVSSVGTISFSLWGPIGVKKLIGGNAAYDFSSYQLGERVVADLHKHNSDKVKLIHALIYQPFQRK |
| GLRaV2-HSP70 | LFTKDEATRYADSIDIADVLKEYKSYAASALPPDEDVELLLCKSVQKVLRGSRLEEIPL. |
| BYV-HSP70 | KLIDGDKALFLKRLIADYRREARKFSSYDDAVLNSSELLICRLIPKILRGSRVEKLD-V |
| | - NSSELLILEKLIPKILKGSKVEKLI)-V |
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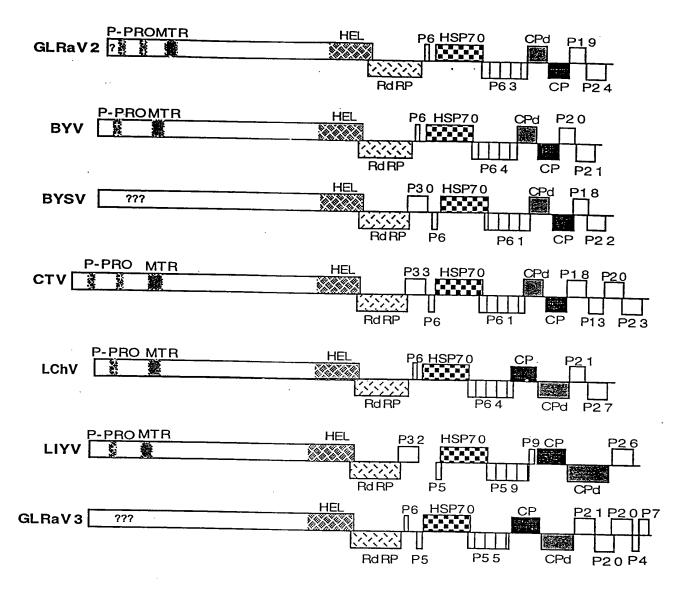


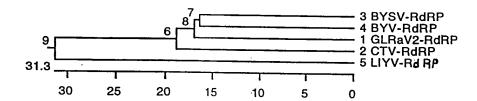
GLRAV2-CP GLRAV2-CPd BYV-CPd BYV-CPd BYSV-CPd BYSV-CPd CIV-CPd CIV-CPd Consensus

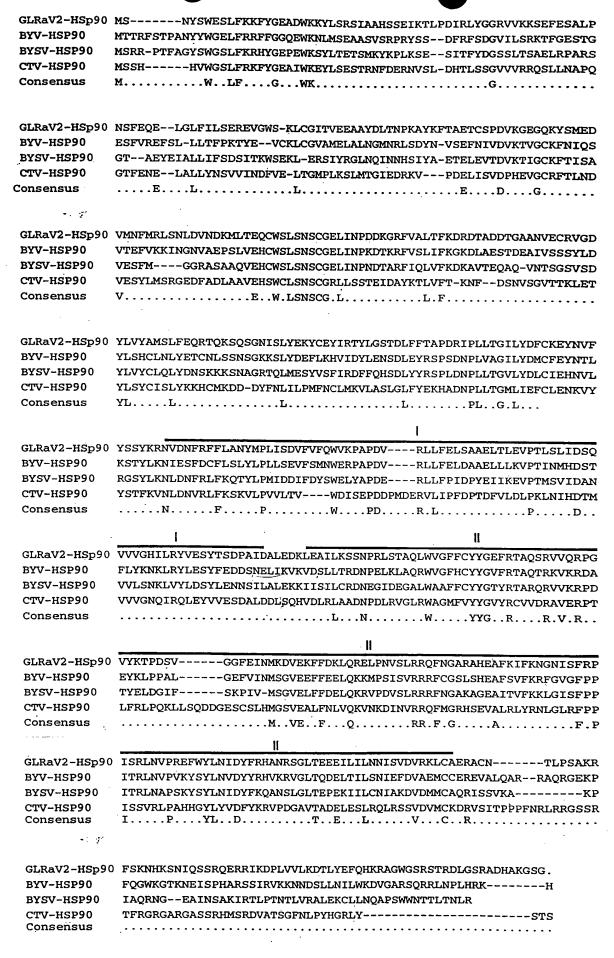
O GLRaV2-CP GLRaV2-CPd BAA-CD Ш - T BYV-CPd BYSV-CP II BYSV-CPd m CIV-CP Ξ: CIV-CPd Consensus





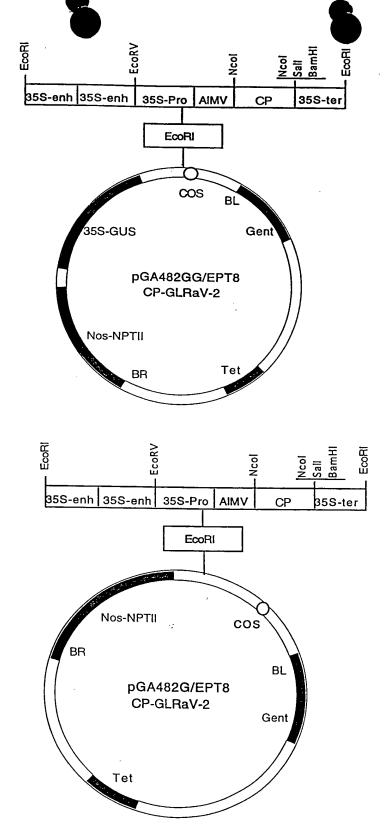






| GLRaV2 3UTR | TTAAGCTGTTACTGAGTAATTAAACCAACAAGTGTTGGTGTAATGTGTATGTTGATGTAGA | |
|-------------|--|-----|
| BYS 3'-UTR | TTAAGTCGTCACAGAGTGACAACGGCACCAAGTGGTGCTTAGTGCGTATGTAAATTACGAA | 135 |
| BYSV 3'-UTR | TTA ACCOUNT ACAD COLOR OF THE ACCOUNT OF THE ACCOUN | 95 |
| | TTAAGCCCTCACAGAGCGAGAACGTTGGCAAGAGCCAATTAGTGTGTGT | 181 |
| | CTAAGCTCCCACAGAGTGGTAGTGGTCTCAAGTGAGGCTTAACGTATGCGTGAACCAAAGA | 208 |
| Consensus | .TAAGAC.GAGCAAG.GT | 200 |

В



FIGURES 11A, 11B

